

Appl. No. 10/736,280
Docket No.: H1823-00004
Reply to Final Office Action of September 21, 2005

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) An electrical contact for electrically engaging first and second confronting conductive pads comprising a plurality of interlaced, annealed, and unsupported wires comprising at least three discrete wires that have been manipulated together so as to interlace them to form a unitary open-ended tubular structure that is substantially free of elastic strain while in the form of said unsupported, open-ended tubular structure, having a first circumferential contact edge that is (i) formed by a first free end of each of said at least three discrete wires, and (ii) engageable by axial compression of said electrical contact, and a second circumferential contact edge spaced axially from said first circumferential contact edge that is (iii) formed by a second free end of each of said at least three discrete wires, and (iv) engageable by said axial compression of said electrical contact.

2. (Original) An electrical contact according to claim 1 wherein said plurality of interlaced and annealed wires comprise a woven and annealed structure that provides a plurality of individual beam-sections.

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3. (Currently Amended) An electrical contact according to claim 1 wherein said plurality of interlaced and annealed wires comprise at least three discrete wires that have been manipulated together so as to interlace them to form said unitary ~~tube structure~~ that is substantially free of elastic strain, wherein said unitary tube may be axially, compressively loaded in the absence of an extruded resiliently supporting structure during said axial compression.

4. (Cancelled)

5. (Currently Amended) An electrical contact according to claim 1 wherein said plurality of interlaced and annealed wires comprise ~~at least~~ three discrete wires that have been manipulated together so as to interlace them to form a unitary tubular structure ~~without~~ in the absence of at least one of a central support structure around which said wires are wound and an enclosing and substantially encasing support structure.

6. (Original) An electrical contact according to claim 1 wherein said plurality of interlaced and annealed wires comprise at least three discrete wires that have been manipulated together so as to interlace them to form a unitary tubular structure without at least one of an outer and inner support structure.

7. -15. (Cancelled)

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16. (Currently Amended) A connector system comprising, in combination:

a housing defining a plurality of openings each having a first open end and a second open end; and

an electrical contact comprising a plurality of interlaced, annealed and unsupported wires disposed in each of said openings wherein said plurality of interlaced and annealed wires comprise at least three discrete wires that have been manipulated together so as to interlace them to form a unitary open-ended tubular structure having a top conducting edge that provides at least three contact points each formed by a first free end of one of said at least three discrete wires and projecting outwardly from said first open end for electrical engagement with a first one of said confronting conductive pads by axial compression of said electrical contact and a bottom conducting edge that provides at least three contact points each formed by a second free end of one of said at least three discrete wires projecting outwardly from said second open end for electrical engagement with a second one of said confronting conductive pads by axial compression of said electrical contact so as to provide an electrical pathway that is substantially free of elastic strain while in the form of said unsupported, open-ended tubular structure.

17. – 20. (Cancelled)

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21. (Currently Amended) A method for forming a precursor material for use in manufacturing an electrical contact comprising:

manipulating a plurality of wires so as to interlace said wires into a unitary tubular structure such that said plurality of wires comprise substantially only elastic strain; and

annealing said unitary tubular structure so as to relieve said elastic strain in said plurality of wires such that said interlaced plurality of wires maintain said unitary tubular structure in the absence of a secondary supporting structure.

22. (Currently Amended) A method according to claim 21 wherein said unitary tubular structure is ~~rolled and~~ cut so as to form at least one electrical contact.

23. (Canceled)

24. (Currently Amended) A method of forming an electrical contact comprising:

elastically manipulating a plurality of wires so as to interlace said wires into a unitary structure such that said plurality of wires comprise substantially only elastic strain;

rolling a portion of said unitary structure so as to form a tube;

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annealing said rolled unitary structure so as to relieve said elastic strain in said plurality of wires such that said interlaced plurality of wires maintain said unitary tubular form in the absence of a secondary supporting structure; and

cutting said unitary structure so as to release said tube thereby to form a first electrical contact.

25. (Original) A method of forming an electrical contact according to claim 22 wherein said rolling of a portion of said unitary structure so as to form a tube and said cutting of said unitary structure so as to release said tube is repeated so as to form a plurality of electrical contacts.

26.- 30. (Cancelled)

31. (Original) An electrical contact formed by the method of claim 24.

32. – 35. (Canceled)

36. (Currently Amended) An electrical contact formed by a process comprising (i) interlacing a plurality of conductors so as to form a continuous cylinder wherein said interlaced conductors elastically engage one another so as to be substantially only elastically deformed, (ii) annealing said continuous elastically strained cylinder so as to substantially eliminate said

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elastic engagement of strain in said conductors; and (iii) cutting said continuous cylinder so as to form at least one open-ended cylinder.

37. (Currently Amended) A method of forming an open-ended substantially cylindrical electrical contact comprising: (i) interlacing a plurality of conductors so as to form a continuous cylinder wherein said interlaced conductors only elastically engage one another so as to be substantially only elastically deformed, (ii) annealing said continuous cylinder so as to substantially eliminate said elastic engagement of strain in said conductors; and (iii) cutting said annealed continuous cylindrical tube to form at least one open-ended cylinder.

38. (Currently Amended) A method of forming an open-ended substantially cylindrical electrical contact comprising: (i) weaving a plurality of conductors so as to form a continuous cylinder having a longitudinal axis, wherein said woven conductors elastically engage one another so as to be substantially only elastically deformed, (ii) annealing said continuous cylinder so as to substantially eliminate said elastic engagement of strain in said conductors, and (iii) periodically transversely cutting said annealed continuous cylinder to form a plurality of open-ended cylinders, each having a longitudinal axis, such that longitudinal deflection of said electrical contact results in substantially only elastic deformation of said plurality of conductors.

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39. (Currently Amended) An open-ended substantially cylindrical electrical contact comprising a woven plurality of conductors having a longitudinal axis, wherein said woven conductors comprise an absence of either elastic strain or ~~plastic deformations~~ such that ~~longitudinal~~ axial compression ~~deflection~~ of said electrical contact results in substantially only elastic deformation of said plurality of conductors.

40. – 42 (Canceled)